

REMARKS

[0001] Applicant respectfully requests reconsideration and allowance of all of the claims of the application. The status of the claims is as follows:

- Claims 1-28 are currently pending
- Claims 1, 3, 4, 6, 10, 14, 16, 20, 21, and 27 are amended herein
- New claim 29 is added herein.

STATEMENT OF SUBSTANCE OF INTERVIEW

[0002] Initially, Applicant wishes to thank the Examiner for conducting an interview with Applicant's representative Elizabeth Zehr, on Tuesday May 19, 2009.

[0003] During the interview, Applicant's representatives and the Examiner discussed the §103 rejection as applied to claims 1 and 3 as well as the §101 rejection as applied to claim 20. Specifically, Applicant presented arguments addressing the elements recited in the claims. With respect to the §101 rejection, the Examiner suggested amending the specification to remove the reference to the "carrier wave". Applicant has herein amended the specification accordingly.

[0004] With respect to the §103 rejection of claim 1, Applicant and the Examiner were unable to come to an agreement. However, the Examiner indicated that more detail pertaining to the instantiating element may help overcome the cited art. Applicant has presented arguments against the rejection and has added independent claim 29.

[0005] Applicant's attorney understood the Examiner to agree that claim 3 appears to overcome the rejections of the cited art. Applicant thanks the Examiner for these indications.

[0006] The subject matter of the interview, and other remarks, are included below under their respective sections to assist the Examiner in more fully understanding the Applicant's position on the rejections under §101 and §103.

Specification Amendments

[0007] Applicant has amended the specification, as noted above, to correct informalities. No new matter has been added.

Drawing Amendments

[0008] Applicant has amended the figure 2 to correct informalities. Specifically, the label for the "Media Stream" element was corrected to read "228." No new matter has been added.

Claims 10-28 Recite Statutory Subject Matter Under § 101

[0009] Claims 10-28 stand rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant respectfully traverses this rejection.

[0010] Nevertheless, for the sole purpose of expediting prosecution and without commenting on the propriety of the Office's rejections, Applicant herein amends the specification to remove the reference to the communication media being a carrier wave.

Dependent claims 11-19 depend from independent claim 10, and dependent claims 21-28 depend from independent claim 20. Applicant respectfully submits that these amendments render the § 101 rejection moot.

Cited Documents

[0011] The following documents have been applied to reject one or more claims of the Application:

- Olds: Olds et al, U.S. Patent Application Publication No. 2005/0055517
- Ouyang: Ouyang et al, U.S. Patent Application Publication No. 2005/0226324
- Guedalia: Jacob Leon Guedalia, U.S. Patent No. 6,536,043

§ 103 Rejections

[0012] Claims 1-5 and 8-28 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Olds in view of Ouyang. Claims 6-7 stand rejected under 35 U.S.C. § 103(a) as allegedly being obvious over Olds in view of Ouyang and further in view of Guedalia. Applicant respectfully traverses the rejection.

Independent Claim 1

[0013] Applicant submits that the Office has not made a *prima facie* showing that independent claim 1 is obvious in view of the combination of Olds and Ouyang. Applicant submits that the combination of Olds and Ouyang does not teach or suggest the following features of this claim, as amended (with emphasis added):

A method for resolving a partial media topology, comprising:
receiving a partial media topology that includes a plurality of nodes including at least one media source node and at least one media sink node;
populating a working first-in-first-out (FIFO) queue with source nodes in the partial topology;
iteratively, for each node in the working FIFO queue:
negotiating a media type for each output of the node with a downstream node in the partial topology;
instantiating one or more intermediate nodes when it is determined that an output of the node is incompatible with an input of the downstream node;
connecting the one or more intermediate nodes between the media source node and the media sink node; and
adding the one or more intermediate nodes to the working FIFO queue only if all input connections of the intermediate nodes are resolved, the one or more added intermediate nodes being absent from the partial media topology.

[0014] Claim 1 recites in part, “instantiating one or more intermediate nodes when it is determined that an output of the node is incompatible with an input of the downstream node.” The Office cites the intermediate command nodes of Olds as teaching this element. (Office Action, page 5, lines 1-2). Olds generally pertains to “prioritizing read and/or write commands in a disc drive.” (Olds, paragraph [0002]). Specifically, commands are prioritized “depending on the type of command” such that pending commands are given “a higher priority than non-pending commands.” (Olds, paragraph [0029]). In order to improve the efficiency of processing the commands, intermediate command nodes “that can be processed in addition to the pending command node within a predetermined amount of time” are identified “for processing prior to the pending command node.” (Olds, paragraph [0065]).

[0015] The A, B, and C queues of Old illustrated in figure 4 pertain to the method of Olds with respect to the intermediate nodes. To summarize figure 4, the “A queue 402 holds new command nodes 404 representing commands that have recently been received from the host 200.” (Olds, paragraph [0034]). Of the new command nodes in the A queue, the write command nodes move to the B queue “[a]fter data associated with the write command node is transferred from the host 200 to the buffer 210.” (Olds, paragraph [0038]). Furthermore, “write command nodes with no cache (i.e., non-cache write command nodes) and read command nodes” are “routed directly from the A queue 402 to the B queue 416.” (Olds, paragraph [0038]).

[0016] With respect to the B queue of figure 4, “[c]ommand nodes 408 in the B queue 416 are sorted according to the required processing time.” (Olds, paragraph [0039]). The command nodes in the B queue are then “scheduled by routing 426 them to the C queue 412” so that they can be “executed in the order” that they are scheduled within the C queue. (Olds, paragraph [0040]). The scheduling process of Olds includes giving preference to B queue commands which are pending, where the “pending commands are commands that are recognized by the host computer 200 as not yet processed by the disc drive.” (Olds, paragraph [0028]). In order to improve efficiency, intermediate commands (i.e. non-pending commands in the B which are identified, during the sorting process, as requiring less processing time compared to the pending command) are “scheduled prior to the pending commands” if “the total command processing time is not greater than the predetermined allowed time.” (Olds, paragraph [0053]).

[0017] As illustrated above, the intermediate commands are commands that may or may not be scheduled prior to pending commands based on the total command

processing time. Olds is silent as to instantiating the intermediate nodes based on whether “an output of the node is incompatible with an input of the downstream node” as recited in claim 1. Rather, Olds assumes that the commands in the queues of figure 4 are compatible with one another.

[0018] Assuming *arguendo* that Olds in view of Ouyang does teach or suggest the above cited recitations of claim 1, Applicant further submits that claim 1 is allowable over the cited art because Olds in view of Ouyang fails to teach or suggest “the one or more added intermediate nodes *being absent from the partial media topology*” as recited in claim 1. (Emphasis added). Rather, as illustrated in figure 4, the intermediate command nodes of Olds are present in queues A, B, and C of Olds.

[0019] Ouyang was not cited for instantiating one or more intermediate nodes and fails to remedy the deficiencies in Olds noted above with respect to claim 1.

[0020] Consequently, the combination of Olds and Ouyang does not teach or suggest all the elements and features of this claim. Accordingly, Applicant respectfully requests that the rejection of this claim be withdrawn.

[0021] The amendments to claim 1 are supported by the specification on at least page 35, paragraphs [0099] – [00100] as well as on page 29, paragraphs [0074] – [0075]. No new matter is added.

Dependent Claims 2-5, and 8-9

[0022] Claims 2-5, and 8-9 ultimately depend from independent claim 1. As discussed above, claim 1 is allowable over the cited art. Therefore, claims 2-5, and 8-9 are also allowable over Olds in view of Ouyang at least for their dependency from

independent claim 1. These claims may also be allowable for the additional features that they recite.

[0023] For example, dependent claim 3 recites: “The method of claim 1, wherein the working FIFO queue comprises each node in the partial topology, and wherein *an ordering of the nodes in the partial topology is maintained from the partial topology to the working FIFO queue.*” (Emphasis added). The Office cites Olds as allegedly teaching the elements of dependent claim 3 as follows: “Olds in view of Ouyang teaches the method of claim 1, wherein the working FIFO queue comprises each node in the partial topology (See queues A, B, C of Olds [Fig. 4]. These queues comprise each node of partial topologies. Also see [0034], [0038], and [0039]).” (Office Action, page 5, lines 15-18).

[0024] Applicant submits that queues A, B, C of Olds fail to disclose the cited elements of claim 3 because queue B of Olds re-orders the commands such that an ordering of the commands is not maintained from the A queue to the C queue. Specifically, Olds recites: “[a] sorting operation 506 then sorts the commands in the B queue 416 according to the determined processing times calculated in the determining operation 505.” (Olds, paragraph [0045]). In summary, since queue B of Olds re-orders the commands, the cited art fails to teach or suggest “an ordering of the nodes in the partial topology is maintained from the partial topology to the working FIFO queue” as recited in claim 3.

[0025] Ouyang fails to remedy the deficiencies in the cited art noted above with respect to claim 3. Accordingly, claims 2-5, and 8-9 are allowable for at least the foregoing reasons.

[0026] The amendments to claim 3 are supported by the specification on at least page 29, paragraph [0074]. No new matter is added.

Dependent Claims 6-7

[0027] Claims 6-7 ultimately depend from independent claim 1. As discussed above, claim 1 is allowable over the cited art. Therefore, claims 6-7 are also allowable over Olds in view of Ouyang and further in view of Guedalia at least for their dependency from independent claim 1. These claims may also be allowable for the additional features that they recite.

[0028] For example, claim 6 recites: "The method of claim 1, wherein adding the one or more intermediate nodes to the working FIFO queue comprises adding one or more intermediate nodes to convert a compressed output stream of the source node into an uncompressed output." With respect to claim 6, the Office recites:

Guedalia teaches a decoder for decompressing data [Col 12, lines 56-57]. Therefore, it would have been obvious to one of ordinary skill in the art to modify the decoder of Ouyang as combined with Olds in order to decompress data, as taught by Guedalia. This modification would benefit the system by allowing an encoder to recompress the data into a desirable data format [Ouyang, 0008].

(Office Action, page 16, lines 3-8).

[0029] Applicant respectfully disagrees and submits that claim 6, as amended, is further allowable over Olds in view of Ouyang and Guedalia. Specifically, Applicant respectfully submits that it would not have been obvious to a person having ordinary skill in the art, at the time the invention was made, to have combined the decoder of

Guedalia with the queue system of Olds to encode/decode the data into a desirable data format.

[0030] The MPEP indicates that in order for an examiner to establish a prima facie case that an invention, as defined by a claim at issue, is obvious, the examiner must (1) interpret the claim at issue; (2) define one or more prior art reference components relevant to the claim at issue; (3) ascertain the differences between the one or more prior art reference components and the elements of the claim at issue; and (4) adduce objective evidence which establishes, under a preponderance of the evidence standard, a teaching to modify the teachings of the prior art reference components such that the prior art reference components can be used to construct a device substantially equivalent to the claim at issue. This last step generally encompasses two sub-steps: (1) adducement of objective evidence teaching how to modify the prior art components to achieve the individual elements of the claim at issue; and (2) adducement of objective evidence teaching how to combine the modified individual components such that the claim at issue, as a whole, is achieved. MPEP § 2141; MPEP § 2143. Each of these forgoing elements is further defined within the MPEP. *Id.*

[0031] This requirement has been explained recently by the Supreme Court in *KSR v. Teleflex*, 550 U.S. 398 (2007); 127 S. Ct. 1727 (2007). As stated by the Court:

[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.

KSR v. Teleflex, 550 U.S. 398 (2007); 127 S. Ct. 1727 at 1741.

[0032] With regard to the specifics of the present rejection, Applicant respectfully submits that a person of ordinary skill would not have been motivated to combine the decoder of Guedalia with the queue system of Olds since the queue system of Olds entails re-ordering commands while the decoder of Guedalia requires maintaining an order of the transmitted data. Specifically, Olds recites:

To improve performance, it is often desirable to *process the host commands in an order different from the order in which they are received*. As is described below, embodiments of the present invention include unique methods and systems of prioritizing commands depending on the type of command, and giving pending commands a higher priority than non-pending commands.

(Olds, paragraph [0029], emphasis added).

[0033] Furthermore, Guedalia recites:

There is thus provided in accordance with a preferred embodiment of the present invention a system for transmitting digital data representing the original over plural transmission links at least some of which have limited bandwidth including . . . a digital data transmitter operative to transmit the digital data representing an original to the receiver over a transmission link having a limited bandwidth in plural blocks *which are sequentially transmitted* at a rate determined by the limited bandwidth

(Guedalia, column 5 line 14, emphasis added). Since the queue system of Olds entails re-ordering commands while the decoder of Guedalia requires maintaining an order of the transmitted data, it would not be obvious to combine the decoder of Guedalia with the queue system of Olds in order to decompress the data into a desirable format.

[0034] Consequently, Olds alone as well as Olds in view of Ouyang and Guedalia does not disclose all of the elements and features of this claim. Accordingly, Applicant respectfully requests that the rejection of this claim be withdrawn.

Independent Claim 10

[0035] Applicant submits that the Office has not made a *prima facie* showing that independent claim 10 is obvious in view of the combination of Olds and Ouyang. Applicant submits that the combination of Olds and Ouyang does not teach or suggest the following features of this claim, as amended (with emphasis added):

A system comprising:
one or more tangible computer-readable media;
a media engine embodied on the one or more computer-readable media and configured to communicatively interact with an application to present a media presentation;
the media engine being configured to use:
a media session to generate a partial topology, the partial topology including one or more media sources individual ones of which serving as a source of media content, and one or more media sinks configured to sink a media stream, and
a topology loader to resolve the partial topology into a full topology, wherein a count of nodes in the full topology is greater than a count of nodes in the partial topology.

[0036] Claim 10 recites in part, “a count of nodes in the full topology is greater than a count of nodes in the partial topology.” The Office cites Olds as teaching this element as follows: “where B Queue schedules partial topology from A Queue into a full scheduled queue at the B Queue.” (Office Action, page 8, lines 15-18).

[0037] Applicant submits Olds fails to teach or suggest the recitations of claim 10 since a count of command nodes in the A queue of Olds is equal to a count of command nodes in the B queue of Olds. The A and B queues of Olds has an equal number of command nodes since all the command nodes in queue A are placed into queue B to be sorted. Specifically, Olds recites: “[c]ommand nodes in the A queue 402 will be routed to the B queue 416 where they will be sorted and prioritized.” (Olds,

paragraph [0037]). Olds further recites: "All command nodes 408 (e.g., read, write, and writeback command nodes) in the B queue 416 will be sorted and selected for scheduling based both on the disc locations associated with the command nodes and the type of command node 408." (Olds, paragraph [0039]).

[0038] Ouyang fails to remedy the deficiencies in Olds noted above with respect to claim 10. Accordingly, Applicant respectfully requests that the rejection of this claim be withdrawn.

[0039] The amendments to claim 10 are supported by the specification on at least page 29, paragraph [0074]. No new matter is added.

Dependent Claims 11-19

[0040] Claims 11-19 ultimately depend from independent claim 10. As discussed above, claim 10 is allowable over the cited art. Therefore, claims 11-19 are also allowable over Olds in view of Ouyang at least for their dependency from independent claim 10. These claims may also be allowable for the additional features that they recite.

Independent Claim 20

[0041] Applicant submits that the Office has not made a *prima facie* showing that independent claim 20 is obvious in view of the combination of Olds and Ouyang. Applicant submits that the combination of Olds and Ouyang does not teach or suggest the following features of this claim, as amended (with emphasis added):

A system comprising:
one or more tangible computer-readable media;

a media engine embodied on the one or more computer-readable media and configured to communicatively interact with an application to present a presentation;

the media engine being configured to use:

a media session to generate one or more media sources individual ones of which serving as a source of media content, and one or more media sinks configured to sink a media stream;

a topology loader to generate one or more transforms communicatively linked with one or more media sources and configured to operate on data received from the one or more media sources, the topology loader to further receive a partially resolved topology from the media session, and *to generate a fully resolved topology by sequentially negotiating a media type of each source node of the partially resolved topology with an input of a downstream node to determine whether additional intermediate nodes should be added.*

[0042] Claim 20 recites in part, “to generate a fully resolved topology by sequentially negotiating a media type of each source node of the partially resolved topology with an input of a downstream node to determine whether additional intermediate nodes should be added.” Claim 20 is amended, in part, to include recitations from previously presented claim 21. The Office cites Olds as teaching the elements of previously presented claim 21 as follows: “Examiner understands a fully resolved topology to be the equivalent of a fully sorted queue of all nodes.” (Office Action, page 13, lines 7-10).

[0043] Applicant submits that Olds fails to disclose the cited elements of amended claim 20 because fully sorted queue B of Olds treats each command node in queue B independently from the next command node in queue B rather than “negotiating a media type of each source node of the partially resolved topology *with an input of a downstream node* to determine whether additional intermediate nodes should be added” as recited in claim 20. (Emphasis added).

[0044] The only discussion in Olds of comparing the command nodes in queue B with other commands is in the sorting element of Olds which “determines a processing time

required to process each command in the B queue 408 from the last scheduled command node 406 in the C queue 412.” (Olds, paragraph [0045]). However, comparing each node in the B queue with the last scheduled node in the C queue fails to teach or suggest the recitations of claim 20 since Olds fails to negotiate source nodes within a single queue.

[0045] Applicant submits that claim 20 is further allowable over the cited art since Olds in view of Ouyang additional fails to “determine whether additional intermediate nodes should be added” as recited in claim 20.

[0046] Consequently, the combination of Olds and Ouyang does not teach or suggest all the elements and features of this claim. Accordingly, Applicant respectfully requests that the rejection of this claim be withdrawn.

Dependent Claims 21-28

[0047] Claims 21-28 ultimately depend from independent claim 20. As discussed above, claim 20 is allowable over the cited art. Therefore, claims 21-28 are also allowable over Olds in view of Ouyang at least for their dependency from independent claim 20. These claims may also be allowable for the additional features that they recite.

Newly Added Claim 29

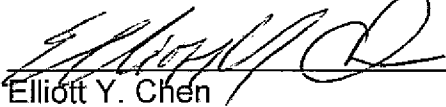
[0048] Independent claim 29 is added herein. Applicant requests favorable consideration of newly added independent claim 29.

Conclusion

[0049] Applicant respectfully requests reconsideration and prompt issuance of the application. If any issues remain that prevent issuance of this application, the Examiner is urged to contact the undersigned representative for the Applicant before issuing a subsequent Action.

Respectfully Submitted,

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